

**AMENDMENTS TO THE CLAIMS**

- 1-24 (cancelled)
25. (previously presented) A method of adjusting the third order input intercept point (IIP3) of a low noise amplifier in a transceiver having a transmitter, a receiver, and a processor, comprising:
- detecting at least high and low transmit powers of the transmitter; and
  - if the transmit power is high, setting the IIP3 to a maximum level.
26. (previously presented) The method of claim 25, further comprising:
- computing, in the processor, an error rate of a signal received by the receiver;
  - if the transmit power is low and the error rate exceeds a predetermined threshold, setting the IIP3 to a maximum level; and
  - if the transmit power is low and the error rate does not exceed the predetermined threshold, setting the IIP3 to a minimum level.
27. (previously presented) The method of claim 26 wherein the error rate is a Frame Erasure Rate (FER).
28. (previously presented) The method of claim 27 wherein the predetermined threshold is one-half percent.
29. (previously presented) A method of operating a transceiver having a transmitter operative to transmit a signal at a variable transmit power including at least a high and a reduced power level, a receiver operative to receive a signal and including a low noise amplifier

having an adjustable gain and an adjustable third order input intercept point (IIP3), and a processor operative to compute an error rate in the signal received by the receiver, comprising:

detecting a signal strength of the received signal; and

if the transmitter is transmitting at or above the high power level and the received signal strength is below a signal strength threshold, operating the low noise amplifier at maximum gain and maximum IIP3.

30. (previously presented) The method of claim 29, further comprising:

detecting an error rate in the received signal, and

if the transmitter is transmitting at or below the reduced power level and the received signal strength is below the signal strength threshold and the error rate is below an error rate threshold, operating the low noise amplifier at maximum gain and minimum IIP3.

31. (previously presented) The method of claim 30, further comprising:

if the transmitter is transmitting at or below the reduced power level and the received signal strength is above the signal strength threshold and the error rate is below the error rate threshold, operating the low noise amplifier at minimum gain and minimum IIP3.

32. (currently amended) The method of claim 30, further comprising:

if the transmitter is transmitting at or below the reduced power level and the received signal strength is above the signal strength threshold and the error rate is above the error rate threshold, operating the low noise amplifier at ~~maximum~~ minimum gain and maximum IIP3.

33. (previously presented) A transceiver, comprising:
- a transmitter operative to transmit a signal at a variable transmit power including at least a high and a low power level;
  - a receiver operative to receive a signal and determine its signal strength, and including a low noise amplifier (LNA) having an adjustable gain and an adjustable third order input intercept point (IIP3); and
  - a processor operative to compute an error rate in the signal received by the receiver, and to adjust the IIP3 of the LNA in response to the transmitter's transmit power.
34. (previously presented) The transceiver of claim 33 wherein if the transmit power is high and the receiver signal strength is below a signal strength threshold, the processor adjusts the IIP3 of the LNA to a maximum value.
35. (previously presented) The transceiver of claim 34 wherein if the transmit power is high and the receiver signal strength is below a signal strength threshold, the processor additionally adjusts the gain of the LNA to a maximum value.
36. (previously presented) The transceiver of claim 33 wherein if the transmit power is low and the receiver signal strength is below the signal strength threshold and the error rate is below an error threshold, the processor adjusts the IIP3 of the LNA to a minimum value.
37. (previously presented) The transceiver of claim 36 wherein if the transmit power is low and the receiver signal strength is below a signal strength threshold and the error rate is below the error threshold, the processor additionally adjusts the gain of the LNA to a maximum value.

38. (previously presented) The transceiver of claim 33 wherein if the transmit power is low and the receiver signal strength is above the signal strength threshold and the error rate is below an error threshold, the processor adjusts the IIP3 of the LNA to a minimum value.
39. (previously presented) The transceiver of claim 38 wherein if the transmit power is low and the receiver signal strength is above a signal strength threshold and the error rate is below the error threshold, the processor additionally adjusts the gain of the LNA to a minimum value.
40. (previously presented) The transceiver of claim 33 wherein if the transmit power is low and the receiver signal strength is above the signal strength threshold and the error rate is above an error threshold, the processor adjusts the IIP3 of the LNA to a maximum value.
41. (previously presented) The transceiver of claim 40 wherein if the transmit power is low and the receiver signal strength is above a signal strength threshold and the error rate is above the error threshold, the processor additionally adjusts the gain of the LNA to a minimum value.